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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,082	12/30/2003	Reza Saedi	D2831	6879
27774	7590	12/12/2005	EXAMINER	
MAYER, FORTKORT & WILLIAMS, PC 251 NORTH AVENUE WEST 2ND FLOOR WESTFIELD, NJ 07090			TRAN, THUY V	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/748,082

Applicant(s)

SAEDI ET AL.

Examiner

Thuy V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment submitted on 09/23/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,7-11 and 13-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4,5,8,10,11 and 13-20 is/are allowed.
- 6) ☒ Claim(s) 9,21 and 25-31 is/are rejected.
- 7) ☒ Claim(s) 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1: ☐ Certified copies of the priority documents have been received.
- 2: ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3: ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is a response to the Applicants' amendment submitted on 09/23/2005. In virtue of this amendment, claims 2-3, 6-7, and 12 are canceled; claims 14-31 are newly added; and thus, claims 1, 4-5, 8-11, and 13-31 are currently presented in the instant application.

Upon reviewing the teachings of prior art of record to Smith et al. (U.S. Patent No. 5,704,213), the indicated allowable subject matter of claim 9 in the Office Action mailed 06/27/2005 is hereby withdrawn. The rejections are being made as follows:

Claim Objections/ Minor Informality

1. Claim 14 is objected to because of the following informalities:

Line 3, --.-- should be inserted after "cooler".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9, 21, and 25-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (U.S. Patent No. 5,704,213).

With respect to claim 9, Smith et al. discloses, in Figs. 2-3, a temperature controlled arrangement for housing an optical component comprising (1) a package [10] (see Figs. 2-3) having an enclosure (which contains laser [16] and other components; see Fig. 2) through which a plurality of electrical connections extend (see Fig. 2), (2) optical components (which are laser

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diodes) located in the enclosure and electrically connected to the electrical connections (see Fig. 2), (3) a first thermoelectric cooler [12] located in the enclosure and in thermal conduction with the optical components (see Fig. 2), (4) a temperature sensor (which is thermistor [14]; see Figs. 2 and 3) located in the enclosure and electrically connected to the electrical connections, (5) a second thermoelectric cooler [22] (see Figs. 2-3) located external to the enclosure and in thermal conduction with the enclosure (see Figs. 2-3), and (6) a thermal conducting element [11] (which acts as a thermal conduit; see Fig. 3; col. 4, line 36-38) in contact with an outer surface of the enclosure and a first surface of the second thermoelectric cooler [22].

With respect to claim 21, Figs. 2 and 3 of Smith et al. show that the at least one of the plurality of electrical connections electrically connects the first [12] and second [22] thermoelectric coolers.

With respect to claims 25 and 27, Smith et al. discloses, in Fig. 3, that the arrangement further comprises a temperature controller [30, 40, 50, 52] operatively controlling the first [12] and second [22] thermoelectric coolers.

With respect to claims 26 and 28, the temperature controller shown in Figs. 2 and 3 of Smith et al. is a proportional controller (since the temperature is determined or regulated in reference to proportions (see Fig. 3; col. 3, line 57 – col. 4, line 44).

With respect to claim 29, Smith et al. discloses, in Figs. 2 and 3, that the optical component is a laser diode (see col. 4, line 42).

With respect to claim 30, Smith et al. discloses, in Fig. 4, that the arrangement further comprises a heat sink (which is not shown; see col. 4, line 9) in contact with a second surface [25] of the second thermoelectric cooler [22].

With respect to claim 31, the temperature sensor shown in Figs. 2 and 3 of Smith et al. is a thermistor (see col. 3, lines 22-23).

Allowable Subject Matter

4. Claims 1, 4-5, 8, 10-11, and 13-20 are allowed.
5. Claims 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- A temperature controlled arrangement for housing an optical component wherein the first and second thermoelectric coolers are electrically connected in series, in combination with the remaining claimed limitations as called for in independent claim 1 (claims 5, 8, 10-11, and 13-14 are allowed since they are dependent on claim 1);
- A temperature controlled arrangement for housing an optical component wherein the first and second thermoelectric coolers are electrically connected in parallel, in combination with the remaining claimed limitations as called for in independent claim 4 (claims 15-20 are allowed since they are dependent on claim 4);
- A temperature controlled arrangement for housing an optical component wherein the first and second thermoelectric coolers are electrically connected in series, in combination with the remaining claimed limitations as called for in claim 22 (claim 23 would be allowable since it is dependent on claim 22); and

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- A temperature controlled arrangement for housing an optical component wherein the first and second thermoelectric coolers are electrically connected in parallel, in combination with the remaining claimed limitations as called for in claim 24.

Citation of relevant prior art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Fang et al. (Pub. No.: US 2003/0036303 A1) discloses a dual thermoelectric cooler package and manufacture process.

Prior art VanHoudt (Pub. No.: US 2002/0121094 A1) discloses a system for cooling a laser diode package.

Prior art Ueki et al. (U.S. Patent No. 6,837,059 B2) discloses a laser module.

Prior art Pease et al. (U.S. Patent No. 6,522,459 B1) discloses a temperature control system.

Remarks and conclusion

8. Upon the amendment submitted on 09/23/2005, claims 1 and 4 and their dependent claims are now allowed.

Claims 9 and its dependent claims 21 and 25-31 are now rejected as being anticipated by the teachings of prior art of record to Smith et al..

Inquiry

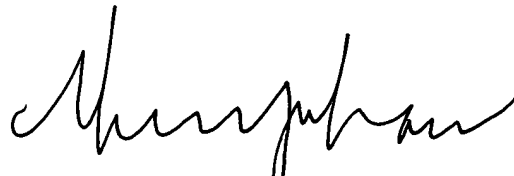
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/10/2005

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', is written above the printed name.

THUY V. TRAN
PRIMARY EXAMINER